R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

THE CLAIMS

Independent claims 1 and 36 have been amended to delete the recitation that the at least one interconnection may be provided on the upper surface of the insulating film. And independent claim 37 has been similarly amended to delete the recitation that the interconnections may be provided on the upper surface of the protective film.

In addition, independent claims 1, 36 and 37 have been amended to recite the feature of the present invention whereby each recess extends from a first position at an edge of one of the holes to a second position outside an area above the connecting pad to which said one of the holes corresponds. See Fig. 1, in which the recesses 7 extend away from the holes 6 (toward the middle in Fig. 1) to a position outside the area above the connecting pads 2, and in which the distribution wires 8 extend along the bottom surfaces of the recesses 7.

Still further, claim 37 has been amended to clarify the recitation of the recessed surfaces to clarify that a plurality of recesses are provided that extend partially through the protective film, and that each of the recesses has a recessed

surface that is lower than an upper surface of the protective film in a thickness direction of the protective film.

Yet still further, claims 3 and 36 have been amended to clarify the feature of the present invention whereby each recess in the insulating film has a pair of side surfaces, and a space is provided between the at least one interconnection and the side surfaces of the recess in which the interconnection is provided. See Fig. 1.

Finally, claim 4 has been amended to clarify the feature of the present invention whereby an encapsulating film is formed around the bump electrode and on the insulating film and the at least one interconnection, to better accord with claim 1.

No new matter has been added, and it is respectfully requested that the amendments to claims 1, 3, 4, 36 and 37 be approved and entered.

It is respectfully submitted, moreover, that all of the pending claims (namely, claims 1, 3-16, 36 and 37) now clearly recite the features of the present invention in full compliance with 35 USC 112, second paragraph, and it is respectfully requested that the rejection thereunder be withdrawn.

THE PRIOR ART REJECTION

Claims 1, 3, 4, 12, 13, 36 and 37 were rejected under 35 USC 102 as being anticipated by USP 6,690,090("Kimura");

claims 1-2 were rejected under 35 USC 102 as being anticipated by US 2002/0027298 ("Sakamoto et al"); and claims 14-16 were rejected under 35 USC 103 as being obvious in view of Kimura. These rejections, however, are respectfully traversed with respect to the claims as amended hereinabove.

According to the present invention as recited in amended independent claims 1 and 36, at least one recess extends partially through the insulating film such that a bottom surface of the recess is depressed with respect to an upper surface of the insulating film in a direction of thickness of the insulating film, and each recess extends from a first position at an edge of one of the holes to a second position outside an area above the connecting pad to which said one of the holes corresponds.

According to the present invention as recited in amended independent claims 37, moreover, a plurality of recesses extend partially through the protective film, each of the recesses has a recessed surface that is lower than an upper surface of the protective film in a thickness direction of the protective film, and each of the recesses extends from a first position at an edge of one of the holes to a second position outside an area above the connecting pad to which said one of the holes corresponds.

With this structure, the distribution wire (interconnection) is provided such that the bump electrode can be located away from

the connecting pad at the semiconductor substrate as viewed from above.

By contrast, in the structure of Kimura, the spaces between the resin layer projections 24b that the Examiner contends corresponds to the recesses of the claimed present invention, clearly do not extend from a position at an edge of a hole in the resin layer 24. Indeed, the Examiner contends that the areas in resin layer 24 of Kimura in which the wires 23 are formed corresponds to the holes of the claimed present invention. However, in Kimura, the resin layer 24b is provided to coat the wires 23. See column 5, lines 28 and 29 of Kimura.

The Examiner also contends that the under-fill material AF and isolation trench 14 in Figs. 10A and 10B of Sakamoto et al correspond to the insulating film recited in claim 1. And the Examiner also contends that recesses are provided adjacent to isolation trench 14 of Sakamoto et al, and that the electrical connection means 23 (solder) correspond to the at least one interconnection recited in claim 1 and are formed on the bottom surface of a recess.

It is respectfully pointed out, however, that according to Sakamoto et al, electrical connection means 23 are clearly not formed on any surface of a recess extending partially through under-fill material AF and isolation trench 14. Indeed, the electrical connection means 23 of Sakamoto et al are connected to

pads 11A or electrodes for radiation 11D, well away from a bottom surface of a recess in the under-fill material AF and isolation trench 14. In addition, the electrical connection means 23 of Sakamoto et al are not connected to the connection pads (SD in Saskamoto et al according to the Examiner), in the manner of the interconnection recited in claim 1.

Still further, it is respectfully submitted that Sakamoto et al does not disclose a recess that extends from a first position at an edge of one of the holes to a second position outside an area above the connecting pad to which the one of the holes corresponds, in the manner of the at least one recess recited in claim 1.

Accordingly, it is respectfully submitted that neither Kimura nor Sakamoto et al discloses, teaches or suggests at least one recess extending partially through the insulating film such that a bottom surface of the recess is depressed with respect to an upper surface of the insulating film in a direction of thickness of the insulating film, wherein each recess extends from a first position at an edge of one of the holes to a second position outside an area above the connecting pad to which said one of the holes corresponds, as recited in amended independent claims 1 and 36. And it is respectfully submitted that neither Kimura nor Sakamoto et al discloses, teaches or suggests a plurality of recesses extending partially through the protective

film, wherein each of the recesses has a recessed surface that is lower than an upper surface of the protective film in a thickness direction of the protective film, and each of the recesses extends from a first position at an edge of one of the holes to a second position outside an area above the connecting pad to which said one of the holes corresponds, as recited in amended independent claim 37.

In addition, it is respectfully submitted that neither Kimura nor Sakamoto et al discloses, teaches or suggests at least one interconnection formed on the bottom surface of a corresponding recess to extend along the bottom surface, wherein each interconnection is connected to a corresponding one of the connecting pads through a corresponding one of the holes in the insulating film.

In view of the foregoing, it is respectfully submitted that the present invention as recited in amended independent claims 1, 36 and 37, as well as claims 3-16 depending from claim 1, clearly patentably distinguishes over Kimura and Sakamoto et al, taken singly or in any combination, under 35 USC 102 as well as under 35 USC 103.

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Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned for prompt action.

Respectfully submitted,

Douglas Holtz
Reg. No. 33,902

Frishauf, Holtz, Goodman & Chick, P.C.
220 Fifth Avenue - 16th Floor
New York, NY 10001-7708
Tel. No. (212) 319-4900
DH:al/iv
encs.